

Appendix C: Special-Status Species Evaluation

Purpose of this Appendix

The National Park Service has prepared the *South Fork Merced River Bridge Replacement Environmental Assessment* to guide the future of the South Fork Merced River Bridge Replacement Project. This appendix evaluates the potential effects of the Preferred Alternative on federally protected and other special- status species.

The Federal Endangered Species Act of 1973, as amended, requires all federal agencies to consult with the U.S. Fish and Wildlife Service before taking actions that could jeopardize the continued existence of species that are listed or proposed to be listed as threatened or endangered, or could result in the destruction or adverse modification of critical or proposed critical habitat. The first step in the consultation process is to obtain a list of protected species from the U.S. Fish and Wildlife Service, accomplished on October 2, 2002.

In addition, *National Park Service Management Policies* (2001) directs parks to manage state and locally listed species in a manner similar to its treatment of federally listed species, to the greatest extent possible. National Park Service policy also directs parks to manage native species that are of special management concern (such as rare, declining, sensitive, or unique species and their habitats) to maintain their natural distribution and abundance.

Also included in this analysis are park rare species. Park rare species are those that have no other status (either state or federal), have extremely limited distributions in the park and may represent relict populations from past climatic or topographic conditions, may be at the extreme extent of their range in the park, or represent changes in species genetics. Presently, the Yosemite National Park rare species list only applies to plant species, because a separate list for wildlife species has not yet been prepared. They are included in this analysis because they could be affected (due to proximity to human- use zones, or susceptibility of individual plants or populations to loss from natural or unnatural events), and their existence is considered when evaluating consequences for any proposed management action.

This evaluation is prepared in accordance with Section 7 of the Federal Endangered Species Act, and implementing regulations (19 USC 1536(c), 50 CFR 402.14(c)), National Environmental Policy Act requirements (USWC 4332(2)(c)), and direction provided in the 1988 *National Park Service Management Policies* (4:11). The purpose of this document is to:

- Evaluate the effects of the Preferred Alternative on special- status species or their critical habitat that are known to be or could be present within the project area.
- Determine the need for consultation and conference with the U.S. Fish and Wildlife Service.
- Conform to requirements of the Federal Endangered Species Act (19 USC 1536(c), 50 CFR 402) and the National Environmental Policy Act (42 USC 4321 *et seq.*, implemented at 40 CFR Parts 1500–1508).
- The National Park Service will submit this evaluation to the U.S. Fish and Wildlife Service as the next step in the consultation process. The U.S. Fish and Wildlife Service will review the evaluation and determine if formal consultation under the Federal Endangered Species Act is required. The U.S. Fish and Wildlife Service will render a letter of

concurrence stating that the Preferred Alternative is not likely to adversely affect a federally listed species or critical habitat.

Species Evaluated

The various federal, state, and National Park Service categories for special status species evaluated herein are defined below:

- Federal endangered: Any species that is in danger of extinction throughout all or a significant portion of its national range.
- Federal threatened: Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its national range.
- Federal species of concern: Any species that may become vulnerable to extinction on a national level from declining population trends, limited range, and/or continuing threats (note this is no longer an official U.S. Fish and Wildlife Service category, but is still considered in this document because it contains many species that could become threatened or endangered).
- California endangered: Any species that is in danger of extinction throughout all or a significant portion of its range in the state.
- California threatened: Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its state range.
- California species of special concern: Any species that may become vulnerable to extinction on a state level from declining population trends, limited range, and/or continuing threats; could become threatened or endangered.
- California rare plants: Identified by the National Park Service based upon the following criteria:
 - Locally rare native
 - Listed by the California Native Plant Society
 - Endemic to the park or its local vicinity
 - At the furthest extent of its range
 - Of special importance to the park (identified in legislation or park management objectives)
 - The subject of political concern or unusual public interest
 - Vulnerable to local population declines
 - Subject to human disturbance during critical portions of its life cycle

Based on data gathered from the National Park Service, U.S. Fish and Wildlife Service (USFWS 2002), and the California Natural Diversity Database (CDF&G 1999b), table C- 1 presents summary information on federally listed threatened or endangered species; species of concern (former federal category 2 species); state- listed threatened, endangered, and rare species; and species that are locally rare or threatened considered in this evaluation. A total of 60 special-status species (55 wildlife species and 5 plant species) have been considered in the evaluation of this project. Additional data on these species are included in the biological assessments for the *Merced Wild and Scenic River Comprehensive Management Plan* and *Yosemite Valley Plan* on file at Yosemite National Park.

Species Removed from Further Analysis

Several species listed in table C- 1 below, have been removed from further analysis. Refer to Chapter III, Affected Environment, for background data on the species evaluated further and Chapter IV, Environmental Consequences, for information regarding potential impacts of the No Action and Preferred Alternatives. The National Park Service has determined that the special-status species removed from further analysis would not be affected by the Preferred Alternative because they do not occur in the project area. Therefore, there would be no direct, indirect, or cumulative effect on these species from the alternatives. These species are not evaluated further in this environmental assessment.

Critical Habitat

Critical habitat is a specific or type of area that is considered to be essential for the survival of a species as designated by the U.S. Fish and Wildlife Service under the Federal Endangered Species Act. Critical habitat has not been designated for any federally listed species that is known or has potential to occur within the project area.

Table C-1. Federal and State Threatened and Endangered Species and Species of Special Concern

Species ¹	Federal Status	State Status	Yosemite National Park Status ²	Habitat	Determination
Federally listed Endangered, Threatened, Proposed, or Candidate Species					
<i>Amphibians and Reptiles</i>					
*California red-legged frog <i>Rana aurora draytonii</i>	FT	CSC	NA	This species is found in quiet pools in permanent streams of mixed conifer habitat and foothill areas. It prefers riparian deciduous habitat. Many specimens were collected historically from one park lake at 6,000 feet elevation. It was also once found in Yosemite Valley, but is now apparently extinct.	Considered further in this analysis. Suitable habitat for this species occurs within the channel of the South Fork Merced River. However, surveys have indicated that this species may be extirpated from Yosemite National Park. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
<i>Fish</i>					
*Central valley (Kalamath Mountains Province) steelhead <i>Onchorhynchus mykiss</i>	FT	—	NA	This species occurs in the Sacramento-San Joaquin estuary and tributaries. Though the species does not occur in Yosemite National Park, the park contains the headwaters of tributaries that feed into downstream habitat for the species.	Removed from further analysis. This species does not occur within Yosemite National Park. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not evaluated further.
*Sacramento splittail <i>Pogonichthys macrolepidotus</i>	FT	—	NA	Habitat for this species includes tidal fresh and brackish waters of the Sacramento-San Joaquin delta, Suisun Bay, tidal marshes in Suisan, Napa, and Petaluma, and the main stem of the Sacramento River. Though the species does not occur in Yosemite National Park, the park contains the headwaters of tributaries that feed into downstream habitat for the species.	Removed from further analysis. This species does not occur within Yosemite National Park. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not evaluated further.
*Delta smelt <i>Hypomesus transpacificus</i>	FT	CT	NA	This species occurs only in Suisun Bay and the Sacramento-San Joaquin estuary near San Francisco Bay. Though the species does not occur in Yosemite National Park, the park contains the headwaters of tributaries that feed into downstream habitat for the species.	Removed from further analysis. This species does not occur within Yosemite National Park. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not evaluated further.
Central valley fall/late fall-run chinook salmon <i>Oncorhynchus tshawytscha</i>	CAN	—	NA	This species occurs in the Sacramento and San Joaquin river systems to spawn in October through February. Oceanic distribution is off coastal California.	Removed from further analysis. This species does not occur within Yosemite National Park. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not evaluated further.
<i>Birds</i>					
*Bald eagle <i>Haliaeetus leucocephalus</i>	FT	CE	NA	This species forages over river, stream, and lake habitats in the park. It primarily forages for fish, but also carrion, waterbirds, and small mammals. It is transient in the park and does not nest.	Considered further in this analysis. This species is expected as a transient visitor to the greater project area. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.

Table C-1. Federal and State Threatened and Endangered Species and Species of Special Concern

Species ¹	Federal Status	State Status	Yosemite National Park Status ²	Habitat	Determination
Federal and California Species of Concern					
<i>Invertebrates</i>					
*Wawona riffle beetle <i>Atractelmis wawona</i>	FSC	—	NA	This species occurs in the South Fork Merced River and in the main stem Merced River within the park. It is associated with aquatic mosses attached to cobble substrate.	Considered further in this analysis. Suitable habitat for this species occurs within the channel of the South Fork Merced River. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
*Merced Canyon shoulderband (Yosemite sideband) snail <i>Helminthoglypta allynsmithi</i>	FSC	—	NA	This species is found in rockslide habitat with shade and moisture. It has been recorded in the Merced River Canyon near El Portal.	Removed from further analysis. Suitable habitat for this species is absent from the project area. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not further evaluated.
*Yosemite mariposa sideband snail <i>Monadenia hillebrandi yosemitensis</i>	FSC	—	NA	This species occurs in rockslide habitat with shade and moisture. Reported in the Yosemite Valley in the early 1900s.	Removed from further analysis. Suitable habitat for this species is absent from the project area. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not evaluated further.
*Bohart's blue butterfly <i>Philotiella speciosa bohartorum</i>	FSC	—	NA	This species occurs near Briceburg in the Merced River Canyon. It uses a plant of serpentine soils, <i>Chorizanthe membranacea</i> as its principal food source. It was last recorded in 1970.	Removed from further analysis. Suitable habitat for this species is absent from the project area. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not further evaluated.
*Sierra pygmy grasshopper <i>Tetrix sierrana</i>	FSC	—	NA	This species has been collected from El Portal in 1953 and only one other record in Madera County is known. Its habitat requirements are unknown (NPS 1996a).	Removed from further analysis. Habitat for this species is unlikely to occur in the project area. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not further evaluated.
<i>Amphibians and Reptiles</i>					
*Mount Lyell salamander <i>Hydromantes platycephalus</i>	FSC	CSC	NA	Found in the high Sierra Nevada, mostly over 8,000', but between 4,000-12,000' elevation. Found in massive granite exposures, talus, and rock fissures, near seepages from streams or melting snow, also in spray zone of waterfalls. Apparently prefers north-facing slopes.	Removed from further analysis. Suitable habitat for this species is absent from the project area. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not evaluated further.
*Foothill yellow-legged frog <i>Rana boylei</i>	FSC	CSC	NA	This species was considered formerly abundant and was found up to elevations of 6,000 feet. It has virtually disappeared from its range in the Sierra Nevada from unknown causes. The preferred habitat was rocky streams and wet meadows.	Considered further in this analysis. Suitable habitat for this species is present within the project area; however, the site is at a lower elevation. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.

Table C-1. Federal and State Threatened and Endangered Species and Species of Special Concern

Species ¹	Federal Status	State Status	Yosemite National Park Status ²	Habitat	Determination
Mountain yellow-legged frog <i>Rana muscosa</i>	FSC	CSC	NA	This species is restricted to the Sierra Nevada at elevations of 4,500-12,000 feet. Occupies riverbanks, meadow streams, isolated pools and lake borders.	Removed from further analysis. Suitable habitat for this species is present within the project area, but the species has not been observed. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not evaluated further.
*Northwestern pond turtle <i>Clemmys marmorata marmorata</i>	FSC	CSC	NA	This subspecies is found in the Sierra Nevada up to 6,000 feet elevation. It has decreased by up to 80% in numbers, likely due to habitat fragmentation and non-native predators. Habitat is permanent water in a variety of habitat types. Recent records include several from Crane Creek at El Portal and an unconfirmed report in the Yosemite Valley in 1999.	Considered further in this analysis. Suitable habitat for this species is present in the project area, but the species has not been observed. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
*Southwestern pond turtle <i>Clemmys marmorata pallida</i>	FSC	CSC	NA	This subspecies is found in the Sierra Nevada up to 6,000 feet elevation. It has decreased by up to 80% in numbers, likely due to habitat fragmentation and non-native predators. Recent records include several from Crane Creek at El Portal and an unconfirmed report in the Yosemite Valley in 1999.	Considered further in this analysis. Suitable habitat for this species is present in the project area, but the species has not been observed. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
Fish					
*Longfin smelt <i>Spirinchus thaleichthys</i>	FSC	—	NA	This species may be extirpated from the San Francisco Bay-Sacramento-San Joaquin estuary, possibly due to sedimentation. Spawn in fresh water close to the ocean, over sandy-gravel substrates, rocks, or aquatic plants.	Removed from further analysis. Suitable habitat for this species is absent from the project area. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not evaluated further.
Birds					
*Little willow flycatcher <i>Empidonax traillii brewsteri</i>	—	CE	NA	Habitat not described, but assumed similar to that of the willow flycatcher. The willow flycatcher breeds in mountain meadows and riparian areas with lush growth of shrubby willows from 2,000 to 8,000 feet in elevation.	Considered further in this analysis. This subspecies may occur within Yosemite, and there are recent records of willow flycatchers at Wawona. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
*American peregrine falcon <i>Falco peregrinus anatum</i>	FD	CE	NA	This species occupies high cliff habitats over or near water to search for prey. Three active nest sites are present in the Yosemite Valley.	Considered further in this analysis. This species is expected as a transient visitor to the greater project area. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.

Table C-1. Federal and State Threatened and Endangered Species and Species of Special Concern

Species ¹	Federal Status	State Status	Yosemite National Park Status ²	Habitat	Determination
Northern goshawk <i>Accipiter gentilis</i>	FSC	CSC	NA	This species occupies a wide variety of forest types, including moderately dense coniferous and mixed forest types broken by meadow and other openings, between 5,000 and 9,000 feet elevation. They are generally associated with remote habitat, away from human contact. It has been recorded in Yosemite Valley between November and February.	Removed from further analysis. Habitat for this species is present in the project area, however the site has a large number of visitors and is at a lower elevation, making the habitat less than suitable.
*Tricolored blackbird <i>Agelaius tricolor</i>	FSC	CSC	NA	This species occupies fresh water marshes with cattail, tule, bulrush, and sedge. Occurs in open cultivated land and pastures during migration.	Removed from further analysis. Suitable habitat for this species is absent from the project area. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not evaluated further.
*Short-eared owl <i>Asio flammeus</i>	FSC	—	NA	This species occupies grasslands, old fields, croplands, and herbaceous wetland habitats. It requires broad expanses of open land with low vegetation for nesting and foraging.	Removed from further analysis. Suitable habitat for this species is absent from the project area. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not evaluated further.
*Lawrence's goldfinch <i>Carduelis lawrencei</i>	FSC	—	NA	This species occupies oak and riparian woodland, chaparral, pinyon-juniper woodland, and weedy areas, usually near water.	Removed from further analysis. Suitable habitat for this species is absent from the project area. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not evaluated further.
Vaux's swift <i>Chaetura vauxi</i>	FSC	—	NA	This species occupies mature forests, but also forages over open country. It has occurred in mature and old-growth coniferous, hardwood, and mixed forests and riparian habitats.	Considered further in this analysis. Suitable habitat for this species is present in the project area. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
Olive-sided flycatcher <i>Contopus cooperi</i>	FSC	—	NA	This species occupies coniferous, hardwood, and mixed forest stands, and woodlands, including riparian habitat. The primary habitat is mature, evergreen montane forest.	Considered further in this analysis. Suitable habitat for this species is present in the project area. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
*Black tern <i>Chlidonias niger</i>	FSC	—	NA	This species may be found on grasslands or herbaceous wetlands, but is more common to marshes, sloughs, rivers, lakeshores, and impoundments. They have been observed using low gradient medium to big river habitat.	Removed from further analysis. Suitable habitat for this species is absent from the project area. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not further evaluated.
*Black swift <i>Cypseloides niger</i>	FSC	—	NA	This species is an aerial-feeding bird that forages over forest and in open areas. It nests behind or next to waterfalls and wet cliffs.	Considered further in this analysis. Suitable habitat for foraging exists in the project area. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.

Table C-1. Federal and State Threatened and Endangered Species and Species of Special Concern

Species ¹	Federal Status	State Status	Yosemite National Park Status ²	Habitat	Determination
*Hermit warbler <i>Dendroica occidentalis</i>	FSC	—	NA	This species occupies conifer and mixed conifer forests, shrublands, and woodlands. It prefers mature stands of pine and fir, with large trees and dense cover. Douglas-fir is an important tree species in breeding habitat.	Considered further in this analysis. Suitable habitat for this species is present in the project area. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
*Harlequin duck <i>Histrionicus histrionicus</i>	FSC	CSC	NA	This species occurs along large, swift-moving mountain rivers during breeding season. It was formerly found in every major watershed in the Sierra Nevada, but has disappeared, with no sightings for the past 20 years. It has not been observed near Wawona in over 40 years (NPS 1996a).	Considered further in this analysis. This species has been reported historically from the Wawona area. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
*Loggerhead shrike <i>Lanius ludovicianus</i>	FSC	—	NA	This species occupies grassland and herbaceous habitats including old-field, savanna, cropland, and desert. It prefers shortgrass pastures or prairies and will use shrubs and small trees for nest sites.	Removed from further analysis. Suitable habitat for this species is absent from the project area. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not evaluated further.
*Lewis' woodpecker <i>Melanerpes lewis</i>	FSC	—	NA	This species occupies open forest habitat, mostly ponderosa pine, and post-fire habitat. It may also be found in oak woodlands and in riparian woodland with an open canopy.	Considered further in this analysis. Suitable habitat for this species is present in the project area. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
*Long-billed curlew <i>Numenius americanus</i>	FSC	—	NA	This species occupies herbaceous wetland and riparian habitats and upland grasslands. It prefers prairies and grassy meadows, generally near water.	Removed from further analysis. Suitable habitat for this species is absent from the project area. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not evaluated further.
*Rufous hummingbird <i>Selasphorus rufus</i>	FSC	—	NA	This species occupies conifer forest and woodland, alpine areas, grasslands, shrublands, and orchards. It is associated with old-growth coniferous forest stands and will breed in second growth stands.	Considered further in this analysis. Suitable habitat for this species is present in the project area. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
*Brewer's sparrow <i>Spizella breweri</i>	FSC	—	NA	This species occupies desert, shrubland, and chaparral habitats. It is strongly associated with sagebrush over most of its range.	Removed from further analysis. Suitable habitat for this species is absent in the project area. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not evaluated further.
*California spotted owl <i>Strix occidentalis occidentalis</i>	FSC	CSC	NA	Breeds in dense oak and ponderosa pine forests to lower red fir forests. Need canopy closure greater than 70% for roosting and nesting and greater than 40% for foraging. None were detected near Wawona in six complete surveys of the area.	Considered further in this analysis. This species is known from observations within 1.5 miles of Wawona; however, the South Fork Bridge Project area was considered too open for use by the California spotted owl (NPS 1996a). Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.

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Species ¹	Federal Status	State Status	Yosemite National Park Status ²	Habitat	Determination
Great gray owl <i>Strix nebulosa</i>	—	CE	NA	This species occupies coniferous, hardwood, and mixed forests and woodlands, especially near water. Forages over open areas with scattered trees or near forest margins.	Considered further in this analysis. Suitable habitat for this species is present in the project area. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
*Oak titmouse <i>Baeolophus inornatus</i>	FSC	—	NA	This species occupies hardwood and mixed forest stands, woodlands, and chaparral. It prefers oak and pine-oak woodland and arborescent chaparral.	Removed from further analysis. Suitable habitat for this species is absent from the project area. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not evaluated further.
*American dipper <i>Cinclus mexicanus</i>	FSC	—	NA	This species occupies montane streams, primarily swift-flowing, less frequently found along mountain ponds and lakes.	Considered further in this analysis. Suitable habitat for this species is present in the project area. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
*White-headed woodpecker <i>Picoides albolarvatus</i>	FSC	—	NA	This species occupies coniferous forest and woodland habitats, descending to lower elevations during the winter season. They prefer montane coniferous forest, primarily mature pine and fir.	Considered further in this analysis. Suitable habitat for this species is present in the project area. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
Nuttall's woodpecker <i>Picoides nuttallii</i>	FSC	—	NA	This species occupies hardwood forest and woodland habitats and chaparral shrublands. It prefers oak forest and woodland, chaparral and riparian types.	Considered further in this analysis. Suitable habitat for this species is present in the project area. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
Mammals					
*California wolverine <i>Gulo gulo</i>	—	CT	NA	This species occupies alpine and arctic tundra and boreal and mountain coniferous forests. Usually it is found in areas with snow on the ground in winter and riparian areas represent important winter habitat. May disperse through atypical habitat. No wolverines have been recorded in California since the 1970s.	Removed from further analysis. Suitable habitat for this species is typically at higher elevations, however the species could be transient through the project area. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not evaluated further.
*Sierra Nevada red fox <i>Vulpes vulpes necator</i>	—	CT	NA	The range for this species is poorly documented but includes the Sierra Nevada, typically above 7,000 feet elevation. It occupies various habitats in alpine and subalpine zones the preferred habitat is red fir and lodgepole pine forests and alpine fell-fields. Dens are likely to be in rockslides. There are 5 unconfirmed reports for the Yosemite Valley.	Removed from further analysis. Suitable habitat for this species is absent from the project area. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not evaluated further.

Table C-1. Federal and State Threatened and Endangered Species and Species of Special Concern

Species ¹	Federal Status	State Status	Yosemite National Park Status ²	Habitat	Determination
Pale Townsend's big-eared bat <i>Corynorhinus</i> (=Plecotus) <i>townsendii pallescens</i>	—	CSC	NA	This species is a cave-dweller that occurs in a variety of habitats including the shrub-steppe and forest edge. They roost in caves, mines, on rocky outcrops, and in buildings.	Considered further in this analysis. Suitable habitat for this species may be present in the project area. This species was captured during 1994 near the South Fork Merced River in Wawona. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
Pacific western big-eared bat <i>Corynorhinus</i> (=Plecotus) <i>townsendii townsendii</i>	FSC	—	NA	This species is found in all habitats up to the alpine zone. Requires caves, mines, or buildings for roosting. Prefers mesic habitats where it feeds on insects from brush or trees along habitat edges. Captured during 1993 survey in Yosemite Valley.	Considered further in this analysis. Suitable habitat for this species may be present in the project area. This species was captured during 1994 near the South Fork Merced River in Wawona. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
*Spotted bat <i>Euderma maculatum</i>	FSC	CSC	NA	This species forages over a variety of habitats and is rare throughout its range. It uses crevices and rock faces for roosting. The species was located near Wawona during 1992-1997.	Considered further in this analysis. Suitable habitat for this species may be present in the project area. Acoustic data from 1994 indicates that a significant population of spotted bats occurs in Wawona. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
*Greater western mastiff-bat <i>Eumops perotis californicus</i>	FSC	CSC	NA	This species is found in a variety of habitats to over 10,000 feet in elevation. It roosts primarily in crevices in cliff faces and on trees. It is detected most often over meadows and other open areas, but also forages over tree canopies.	Considered further in this analysis. Suitable habitat for this species may be present in the project area. This species was captured during 1994 in the Wawona area. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
*Sierra Nevada snowshoe hare <i>Lepus americanus tahoensis</i>	FSC	—	NA	This species inhabits high elevations, above the mixed conifer zone within the Sierra Nevada.	Removed from further analysis. Suitable habitat for this species is absent from the project area. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not evaluated further.
*American (=Pine) marten <i>Martes americana</i>	FSC	—	NA	This species occupies dense deciduous, mixed, or coniferous upland and lowland forest and may use rocky alpine areas. The foraging activity is nocturnal in winter and diurnal in summer in the Sierra Nevada.	Removed from further analysis. Although suitable habitat is present in the vicinity of the project site, it is unknown if the species uses this busy area. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not evaluated further.
*Pacific fisher <i>Martes pennanti pacifica</i>	FSC	CSC	NA	This subspecies occurs in coniferous forests and deciduous riparian habitats with high canopy closure, between 4,000 and 6,000 feet in elevation. They have been observed near Crane Flat and Henness Ridge in the last ten years.	Considered further in this analysis. Suitable habitat for this species is present in the vicinity of the project site. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.

Table C-1. Federal and State Threatened and Endangered Species and Species of Special Concern

Species ¹	Federal Status	State Status	Yosemite National Park Status ²	Habitat	Determination
*Small-footed myotis bat <i>Myotis ciliolabrum</i>	FSC	—	NA	This species is usually found below 8,800 feet in elevation and in wooded and brushy habitats near water. It forages among trees and over water. It breeds in caves, mines, and buildings.	Considered further in this analysis. Suitable habitat for this species may be present in the project area. This species was captured using mist-netting techniques during 1994 in the Wawona area. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
*Long-eared myotis bat <i>Myotis evotis</i>	FSC	—	NA	This species has a broad range from the coast to high elevations in the Sierra Nevada. It occupies montane oak woodland habitat and roosts in hollow trees. It was captured in Yosemite Valley in 1993.	Considered further in this analysis. Suitable habitat for this species may be present in the project area. This species was captured on the Wawona Golf Course and along the South Fork Merced River using mist-netting techniques during 1994. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
*Fringed myotis bat <i>Myotis thysanodes</i>	FSC	—	NA	This species occurs up to 6,400 feet in elevation, in deciduous/mixed conifer forests. It feeds over water, in open habitats, and off foliage. Roosts in caves, mines, buildings, and trees. It has been captured in Yosemite Valley.	Considered further in this analysis. Suitable habitat for this species may be present in the project area. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
*Long-legged myotis bat <i>Myotis volans</i>	FSC	—	NA	This species occurs up to high elevations in the Sierra Nevada. It occupies montane coniferous forest habitats and forages over water, close to trees and cliffs, and in forest openings. It was captured in the Yosemite Valley during 1993.	Considered further in this analysis. Suitable habitat for this species may be present in the project area. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
*Yuma myotis bat <i>Myotis yumanensis</i>	FSC	CSC	NA	This species usually occurs below 8,000 feet elevation, foraging over open, still, or slow-moving water and above low vegetation in meadows. Roosts in caves, buildings, or in crevices. It was captured near Wawona in 1993 and 1994.	Considered further in this analysis. Suitable habitat for this species may be present in the project area. This species was captured in Wawona and along the South Fork Merced River near Wawona during 1993-1994 mist-netting surveys. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
Mount Lyell shrew <i>Sorex lyelli</i>	FSC	—	NA	This species is known from wetland communities, near streams, in grassy areas, under willows, and in sagebrush steppe community at elevations of 6,900-10,350 feet. It is known from areas in and around Yosemite National Park.	Removed from further analysis. Although suitable habitat occurs in the project area, the elevation is nearly 3,000 feet lower. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not evaluated further.
Plants					
Small's southern clarkia <i>Clarkia australis</i>	—	—	PR	This species is endemic to California in Mariposa, Madera, and Tuolumne counties. It is an annual plant confined to open ponderosa pine forests, lower montane coniferous forest, and cismontane woodland between 2,400-6,300 feet elevation.	Considered further in this analysis. Suitable habitat for this species may be present in the project area. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.

Table C-1. Federal and State Threatened and Endangered Species and Species of Special Concern

Species ¹	Federal Status	State Status	Yosemite National Park Status ²	Habitat	Determination
Rawson's flaming-trumpet <i>Collomia rawsoniana</i>	FSC	—	UNK	This species is found in California and Oregon, growing on cool, shaded areas near streams from 3,000-6,000 feet elevation.	Considered further in this analysis. Suitable habitat for this species may be present in the project area. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
*Congdon's woolly-sunflower <i>Eriophyllum congdonii</i>	FSC	CR	UNK	This species is a California endemic that occupies chaparral, cismontane woodland, and lower montane coniferous forest. It occurs on dry ridges on metamorphic rocks, scree, and talus.	Removed from further analysis. Suitable habitat for this species is absent from the project area. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not evaluated further.
Yosemite lewisia <i>Lewisia disepala</i>	FSC	—	PR	This species occupies lower montane coniferous forest, pinyon – juniper woodland, and upper montane coniferous forest, growing on sandy soils derived from granite.	Considered further in this analysis. Suitable habitat for this species may be present in the project area. Refer to Chapter III for background data on this species and Chapter IV for an analysis of direct, indirect, or cumulative effects on this species.
*Short-leaved hulsea (=Shortleaf alpinegold) <i>Hulsea brevifolia</i>	FSC	—	PR	This species is occasional in California and has a limited habitat.	Removed from further analysis. Suitable habitat for this species is absent from the project area. There is no expected direct, indirect, or cumulative effect on this species from the Preferred Alternative and this species is not evaluated further.

¹ A "*" indicates that the species occurs (has been observed) on the Wawona topographic quadrangle (USFWS 2002).

² This designation applies only to species of plants considered to be rare in Yosemite National Park

FE = Federally-listed as endangered; FT = Federally-listed as threatened; FPT = Federally proposed as threatened; FSC = Federal species of special concern; FD = Federally delisted; CAN = Candidate for federal listing; CE = California endangered; CT = California threatened; CSC = California species of special concern; PR = considered rare in the park; NA = Not Applicable; UNK = Presently Unknown